L Number	Hits	Search Text	DB	Time stamp
1	4	"6616948"	USPAT;	2004/07/26 10:47
-			US-PGPUB;	
			EPO; JPO;	
			DERWENT	
2	2	"6692770"	USPAT;	2004/07/26 10:49
	-		US-PGPUB;	
			EPO; JPO;	
	}		DERWENT	
3	5	"6706288"	USPAT;	2004/07/26 10:50
			US-PGPUB;	
			EPO; JPO;	
			DERWENT	
4	5	"6120787"	USPAT;	2004/07/26 10:54
			US-PGPUB;	
			EPO; JPO;	
İ			DERWENT	
5	542	514/60	USPAT;	2004/07/26 10:54
			US-PGPUB;	
			EPO; JPO;	
			DERWENT	
6	417	514/60 and starch	USPAT;	2004/07/26 11:43
			US-PGPUB;	
			EPO; JPO;	
_	100		DERWENT	
7	106	(514/60 and starch) and amylopectin	USPAT;	2004/07/26 11:43
			US-PGPUB;	
			EPO; JPO;	
	50	//E14/CO and stayah) and anadanastin) and gal	DERWENT	2004/07/20 44.42
9	52	((514/60 and starch) and amylopectin) and gel	USPAT;	2004/07/26 11:43
			US-PGPUB;	
			EPO; JPO; DERWENT	
10	8	(((514/60 and starch) and amylopectin) and gel) and	USPAT;	2004/07/26 11:44
10		endotoxin	US-PGPUB;	2004/07/20 11.44
		endotoxin	EPO; JPO;	
			DERWENT	
11	719	536/102	USPAT:	2004/07/26 11:43
			US-PGPUB;	200 1/01/20 11:10
			EPO; JPO;	
			DERWENT	
12	587	536/102 and starch	USPAT;	2004/07/26 11:43
			US-PGPUB;	
			EPO; JPO;	
			DERWENT	
13	195	(536/102 and starch) and amylopectin	USPAT;	2004/07/26 11:43
		- ·	US-PGPUB;	
			EPO; JPO;	
			DERWENT	
14	118	((536/102 and starch) and amylopectin) and gel	USPAT;	2004/07/26 11:44
			US-PGPUB;	
			EPO; JPO;	
		///505/406	DERWENT	
15	4	(((536/102 and starch) and amylopectin) and gel) and	USPAT;	2004/07/26 11:49
		endotoxin	US-PGPUB;	
		į	EPO; JPO;	
16	044054	atarah	DERWENT	0004/07/00 44 75
16	214051	starch	USPAT;	2004/07/26 11:50
]			US-PGPUB;	
			EPO; JPO;	
17	5189	etarch and amylanactin	DERWENT	2004/07/00 44.50
''	3109	starch and amylopectin	USPAT;	2004/07/26 11:50
			US-PGPUB;	
			EPO; JPO; DERWENT	
L	L		PELLAAFIAI	

18	92	(starch and amylopectin) and (nitrogen NEAR content)	USPAT;	2004/07/26 11:50
			US-PGPUB;	
			EPO; JPO;	
			DERWENT	
19	28	((starch and amylopectin) and (nitrogen NEAR content)) and	USPAT;	2004/07/26 11:50
	1	pharmaceutical	US-PGPUB;	
			EPO; JPO;	
			DERWENT	
20	57	((starch and amylopectin) and (nitrogen NEAR content)) and	USPAT;	2004/07/26 11:51
		gel	US-PGPUB;	
}			EPO; JPO;	
			DERWENT	
21	15	(((starch and amylopectin) and (nitrogen NEAR content)) and	USPAT;	2004/07/26 11:51
		gel) and endotoxin	US-PGPUB;	
			EPO; JPO;	
			DERWENT	

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PASSWORD:

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```
=> s starch and (pharmaceutical or (pharmaceutical (w) grade)
UNMATCHED LEFT PARENTHESIS 'AND (PHARMACEUT'
The number of right parentheses in a query must be equal to the
number of left parentheses.
    starch and (pharmaceutical or (pharmaceutical (w) grade))
STARCH IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).
      starch and (pharmaceutical or (pharmaceutical (w) grade))
  20 FILES SEARCHED...
         97234 STARCH AND (PHARMACEUTICAL OR (PHARMACEUTICAL (W) GRADE))
L1
=> s l1 and amylopectin
          2070 L1 AND AMYLOPECTIN
L2
=> s 12 and (purity and (amino acid nitrogen)
UNMATCHED LEFT PARENTHESIS 'AND (PURITY'
The number of right parentheses in a query must be equal to the
number of left parentheses.
=> s 12 and purity and (amino acid nitrogen)
   7 FILES SEARCHED...
  16 FILES SEARCHED...
  17 FILES SEARCHED...
            21 L2 AND PURITY AND (AMINO ACID NITROGEN)
L3
=> s 13 and gel
            21 L3 AND GEL
L4
=> s 14 and endotoxin
            21 L4 AND ENDOTOXIN
L5
=> dis 15 1-21 bib abs
     ANSWER 1 OF 21 USPATFULL on STN
L5
AN
       2004:151060 USPATFULL
       Microparticles
TI
       Gustavsson, Nils Ove, Loddekopinge, SWEDEN
IN
       Jonsson, Monica, Bara, SWEDEN
       Laakso, Timo, Campton, UNITED KINGDOM
       Reslow, Mats, Lund, SWEDEN
       US 2004115281
PI
                          A1
                                20040617
                                20031110 (10)
ΑI
       US 2003-705204
                          A1
       Continuation of Ser. No. US 2001-970793, filed on 5 Oct 2001, GRANTED,
RLI
       Pat. No. US 6706288
       Utility
\operatorname{DT}
FS
       APPLICATION
LREP
       Richard H. Newman, Esq., Edwards & Angell, LLP, P.O. Box 9169, Boston,
       MA, 02209
       Number of Claims: 46
CLMN
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 1758
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A process for producing parenterally administrable microparticles, in
AB
       which an at least 20% by weight aqueous solution of purified
       amylopectin-based starch of reduced molecular weight
       is prepared, the solution is combined with biologically active
       substance, an emulsion of starch droplets is formed in an
       outer phase of polymer solution, the starch droplets are made
       to gel, and the gelled starch particles are dried. A
       release-controlling shell is optionally also applied to the particles.
```

Microparticles which essentially consist of said **starch**, have an amino acid content of less than 50 μg and have no covalent chemical cross-linking.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L5
     ANSWER 2 OF 21 USPATFULL on STN
       2004:25172 USPATFULL
AN
       Pharmaceutically acceptable starch
TI
       Gustavsson, Nils Ove, Loddekopinge, SWEDEN
IN
       Jonsson, Monica, Bara, SWEDEN
       Berden, Per, Malmo, SWEDEN
       Laakso, Timo, Bedfordshire, UNITED KINGDOM
       JAGOTEC AG., Muttenz, SWITZERLAND (non-U.S. corporation)
PA
PI
       US 2004019014
                          A1
                               20040129
ΑI
       US 2003-627920
                          A1
                               20030728 (10)
       Division of Ser. No. US 2001-970648, filed on 5 Oct 2001, PENDING
RLI
PRAI
       SE 2000-3616
                          20001006
       US 2001-260491P
                           20010108 (60)
DT
       Utility
FS
       APPLICATION
       BURNS DOANE SWECKER & MATHIS L L P, POST OFFICE BOX 1404, ALEXANDRIA,
LREP
       VA, 22313-1404
      Number of Claims: 45
CLMN
       Exemplary Claim: 1
ECL
      No Drawings
DRWN
LN.CNT 1167
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Production of purified, parenterally administrable starch by
AB
       washing starch containing more than 85% amylopectin
       in order to remove surface-localized proteins, lipids and
       endotoxins, dissolving the starch in aqueous medium,
      molecular weight reduction by shearing, and optionally removal of
      residual water-soluble proteins, preferably by anion exchange
       chromatography.
      Purified starch and microparticles based on such
```

starch.

·

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 3 OF 21 USPATFULL on STN
L5
AN
       2003:299946 USPATFULL
TI
       Microparticles
       Gustavsson, Nils Ove, Loddekopinge, SWEDEN
IN
       Jonsson, Monica, Bara, SWEDEN
       Laakso, Timo, Campton, UNITED KINGDOM
       Reslow, Mats, Lund, SWEDEN
       Jagotec AG, Muttenz, SWITZERLAND (non-U.S. corporation)
PA
ΡI
       US 2003211167
                          A1
                               20031113
                               20040217
       US 6692770
                          B2
ΑI
       US 2003-461445
                          A1 .
                               20030616 (10)
       Division of Ser. No. US 2001-970793, filed on 5 Oct 2001, PENDING
RLI
PRAI
       SE 2000-3615
                           20001006
       US 2001-260455P
                           20010108 (60)
DT
       Utility
FS
      APPLICATION
       Benton S. Duffett Jr., BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box
LREP
       1404, Alexandria, VA, 22313-1404
       Number of Claims: 46
CLMN
       Exemplary Claim: 1
ECL
       No Drawings
DRWN
LN.CNT 1756
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

AB A process for producing parenterally administrable microparticles, in which an at least 20% by weight aqueous solution of purified amylopectin-based starch of reduced molecular weight is prepared, the solution is combined with biologically active substance, an emulsion of starch droplets is formed in an outer phase of polymer solution, the starch droplets are made to gel, and the gelled starch particles are dried. A release-controlling shell is optionally also applied to the particles.

Microparticles which essentially consist of said starch, have an amino acid content of less than 50 μg and have no covalent chemical cross-linking.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L5
     ANSWER 4 OF 21 USPATFULL on STN
AN
       2003:293948 USPATFULL
TI
       Starch
IN
       Gustavsson, Nils Ove, Loddekopinge, SWEDEN
       Jonsson, Monica, Bara, SWEDEN
       Berdeh, Per, Malmo, SWEDEN
       Laakso, Timo, Bedfordshire, UNITED KINGDOM
       Reslow, Mats, Lund, SWEDEN
       Jagotec AG, Muttenz, SWITZERLAND (non-U.S. corporation)
PA
                               20031106
PΙ
       US 2003206961
                          A1
       US 2003-461393
                          A1
                               20030616 (10)
AI
       Division of Ser. No. US 2001-970795, filed on 5 Oct 2001, GRANTED, Pat.
RLI
       No. US 6616948
       SE 2000-3616
PRAI
                           20001006
       US 2001-260491P
                           20010108 (60)
DT
       Utility
FS
       APPLICATION
       BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box 1404, Alexandria, VA,
LREP
       22313-1404
       Number of Claims: 45
CLMN
       Exemplary Claim: 1
ECL
      No Drawings
DRWN
LN.CNT 1129
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Production of purified, parenterally administrable starch by
AB
       washing starch containing more than 85% amylopectin
       in order to remove surface-localized proteins, lipids and
       endotoxins, subjecting the starch to a molecular
       weight reduction by acid hydrolysis, and optionally removing residual
```

Purified starch and microparticles based on such starch.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 5 OF 21 USPATFULL on STN

water-soluble proteins.

L5

```
2003:257321 USPATFULL
AN
TI
       Microparticles
       Reslow, Mats, Lund, SWEDEN
IN
       Jonsson, Monica, Bara, SWEDEN
       Larsson, Karin, Torna Hallestad, SWEDEN
       Laakso, Timo, Campton, UNITED KINGDOM
       US 2003180371
ΡI
                          A1
                               20030925
ΑI
       US 2002-162674
                          A1
                               20020606 (10)
PRAI
       SE 2002-873
                           20020321
       SE 2002-1599
                           20020530
       Utility
DT
FS
       APPLICATION
       Benton S. Duffett, Jr., BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box
LREP
```

```
1404, Alexandria, VA, 22313-1404
       Number of Claims: 78
CLMN
       Exemplary Claim: 1
ECL
       1 Drawing Page(s)
DRWN
LN.CNT 1946
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A process for producing microparticles, in which an aqueous solution of
AB
       purified amylopectin-based starch of reduced
       molecular weight is prepared, the solution is combined with biologically
       active substance, an emulsion of starch droplets is formed in
       an outer phase of polymer solution, the starch droplets are
       made to gel, the gelled starch particles are dried,
       and a release-controlling shell is optionally applied to the particles,
       wherein at least one buffer substance having the ability of keeping the
```

to an aqueous evironment is added at any stage during the process. Microparticles which essentially consist of said starch, have an amino acid content of less than 50 µg and have no covalent chemical cross-linking and which have the aktivity of keeping the pH

pH of the produced microparticles above 3 if exposing the microparticles

above 3 if exposed to a aqueous environment,

```
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 6 OF 21 USPATFULL on STN
L5
       2003:29848 USPATFULL
AN
       Antibody fragment-polymer conjugates and humanized anti-IL-8 monoclonal
TI
       antibodies
       Hsei, Vanessa, San Jose, CA, UNITED STATES
IN
       Koumenis, Iphigenia, Palo Alto, CA, UNITED STATES
       Leong, Steven, Berkeley, CA, UNITED STATES
       Presta, Leonard, San Francisco, CA, UNITED STATES
       Shahrokh, Zahra, San Francisco, CA, UNITED STATES
       Zapata, Gerardo, St. Foster City, CA, UNITED STATES
       Genentech, Inc. (U.S. corporation)
PA
       US 2003021790
                          A1
                               20030130
PI
                          A1
       US 2000-726258
                               20001129 (9)
ΑI
       Continuation of Ser. No. US 1999-234182, filed on 20 Jan 1999, PENDING
RLI
                          19980122 (60)
PRAI
       US 1998-74330P
                         19980724 (60)
       US 1998-94013P
                       19980724 (60)
       US 1998-94003P
                           19980220 (60)
       US 1998-75467P
       Utility
DT
FS
       APPLICATION
       Knobbe Martens Olson & Bear LLP, Ginger R Dreger, Sixteenth Floor, 620
LREP
       Newport Center Drive, Newport Beach, CA, 92660
       Number of Claims: 35
CLMN
       Exemplary Claim: 1
\mathsf{ECL}
DRWN
       142 Drawing Page(s)
LN.CNT 10643
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Humanized anti-IL-8 monoclonal antibodies and variants thereof are
AB
       described for use in diagnostic applications and in the treatment of
       inflammatory disorders. Also described is a conjugate formed by an
       antibody fragment covalently attached to a non-proteinaceous polymer,
       wherein the apparent size of the conjugate is at least about 500 kD, The
       conjugate exhibits substantially improved half-life, mean residence
       time, and/or clearance rate in circulation as compared to the
       underivatized parental antibody fragment.
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 7 OF 21 USPATFULL on STN
L5
```

2002:275741 USPATFULL AN

Methods of treating inflammatory diseases with anti-IL-8 antibody TI

```
Hsei, Vanessa, San Jose, CA, United States
IN
       Koumenis, Iphigenia, Palo Alto, CA, United States
       Leong, Steven, Berkeley, CA, United States
       Presta, Leonard, San Francisco, CA, United States
       Shahrokh, Zahra, San Francisco, CA, United States
       Zapata, Gerardo, Foster City, CA, United States
       Genentech, Inc., South San Francisco, CA, United States (U.S.
PA
       corporation)
       US 6468532
                               20021022
                          B1
PΙ
                               19990120 (9)
ΑI
       US 1999-234340
                           19980724 (60)
       US 1998-94013P
PRAI
                           19980724 (60)
       US 1998-94003P
       US 1998-75467P
                           19980220 (60)
       US 1998-74330P
                           19980122 (60)
       Utility
\mathbf{DT}
       GRANTED
FS
       Primary Examiner: Mertz, Prema; Assistant Examiner: Hamud, Fozia
EXNAM
       Knobbe, Martens, Olson & Bear, LLP
LREP
       Number of Claims: 23
CLMN
       Exemplary Claim: 1
ECL
       161 Drawing Figure(s); 142 Drawing Page(s)
DRWN
LN.CNT 10647
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Provided are methods for treating inflammatory diseases in a patient
AB
       comprising administering to the patient an effective amount of a
       conjugate consisting essentially of one or more antibody fragments
       covalently attached to one or more nonproteinaceous polymer molecules,
       wherein at least one antibody fragment comprises an antigen binding site
       that binds to human IL-8, and wherein the apparent size of the conjugate
       is at least about 500 kD.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 8 OF 21 USPATFULL on STN
L5
       2002:254046 USPATFULL
AN
       Methods of treating inflammatory disease with anti-IL-8 antibody
TI
       fragment-polymer conjugates
       Hsei, Vanessa, San Jose, CA, United States
IN
       Koumenis, Iphigenia, Palo Alto, CA, United States
       Leong, Steven, Berkeley, CA, United States
       Presta, Leonard, San Francisco, CA, United States
       Shahrokh, Zahra, San Francisco, CA, United States
       Zapata, Gerardo, St. Foster, CA, United States
       Genentech, Inc., South San Francisco, CA, United States (U.S.
PA
       corporation)
       US 6458355
                               20021001
PI
                          B1
ΑI
       US 1998-121952
                               19980724 (9)
                           19980122 (60)
PRAI
       US 1998-74330P
                           19980220 (60)
       US 1998-75467P
       Utility
DT
       GRANTED
FS
      Primary Examiner: Mertz, Prema; Assistant Examiner: Hamud, Fozia
EXNAM
       Knobbe, Martens, Olson & Bear, LLP
LREP
       Number of Claims: 34
CLMN
       Exemplary Claim: 1
ECL
       161 Drawing Figure(s); 142 Drawing Page(s)
DRWN
LN.CNT 10658
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Provided are methods for treating inflammatory diseases in a patient
AB
       comprising administering to the patient an effective amount of a
       conjugate consisting essentially of one or more antibody fragments
       covalently attached to one or more nonproteinaceous polymer molecules,
       wherein at least one antibody fragment comprises an antigen binding site
       that binds to human IL-8, and wherein the apparent size of the conjugate
```

fragment-polymer conjugates

is at least about 500 kD.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 9 OF 21 USPATFULL on STN 2002:191248 USPATFULL AN Microparticle preparation TIGustavsson, Nils Ove, Loddekopinge, SWEDEN IN Jonsson, Monica, Bara, SWEDEN Laakso, Timo, Campton, UNITED KINGDOM Reslow, Mats, Lund, SWEDEN Bjorn, Soren, Lyngby, DENMARK Drustrup, Jorn, Farum, DENMARK US 2002102311 A1 20020801 PIUS 2002-970792 A1 20020110 (9) AI SE 2000-3614 20001006 PRAI US 2001-260495P 20010108 (60) Utility DTAPPLICATION FS Benton S. Duffett, Jr., BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box LREP 1404, Alexandria, VA, 22313-1404

Number of Claims: 38 CLMN Exemplary Claim: 1

ECL 2 Drawing Page(s) DRWN

LN.CNT 1903

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A parenterally administrable, biodegradable microparticle preparation AB containing a biologically active substance which, during the first 24 hours after injection, exhibits a release of the active substance that is less than 25% of the total release, determined from a concentration-time curve in the form of the ratio between the area under the curve during the said first 24 hours and the total area under the curve in question

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 10 OF 21 USPATFULL on STN L5AN2002:185295 USPATFULL Vaccine composition TI Gustavsson, Nils Ove, Loddekopinge, SWEDEN IN Jonsson, Monica, Bara, SWEDEN Laakso, Timo, Campton, UNITED KINGDOM Reslow, Mats, Lund, SWEDEN Larsson, Karin, Torna Hallestad, SWEDEN US 2002098203 PΙ **A1** 20020725 20020110 (9) ΑI US 2002-970794 **A1** PRAI SE 2000-3615 20001006 US 2001-260455P 20010108 (60) Utility DTFS APPLICATION

Benton S. Duffett, Jr., BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box LREP 1404, Alexandria, VA, 22313-1404

Number of Claims: 53 CLMN Exemplary Claim: 1 ECL 2 Drawing Page(s) DRWN

LN.CNT 1639

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A vaccine composition which comprises an immnunologically active AB substance embedded in microparticles essentially consisting of starch having an amylopectin content exceeding 85% by weight, of which at least 80% by weight has an average molecular weight within the range of 10-10000 kDa, and without any covalent chemical cross-linking between the starch molecules.

A process for preparing such vaccine composition.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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ANSWER 11 OF 21 USPATFULL on STN
L5
       2002:156739 USPATFULL
AN
       Parenterally administrable microparticles
TI
       Jonsson, Monica, Bara, SWEDEN
IN
       Laakso, Timo, Campton, UNITED KINGDOM
       Reslow, Mats, Lund, SWEDEN
PI
       US 2002081336
                          A1
                                20020627
ΑI
       US 2001-970649
                          A1
                                20011005 (9)
PRAI
       SE 2000-4218
                          20001116
       US 2001-260496P 20010108 (60)
       Utility
DT
FS
       APPLICATION
LREP
       Benton S. Duffett, Jr., BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box
       1404, Alexandria, VA, 22313-1404
       Number of Claims: 57
CLMN
       Exemplary Claim: 1
ECL
       No Drawings
DRWN
LN.CNT 1679
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A process for producing microparticles containing biologically active
AB
       substance, in which process an aqueous solution of the said substance is
       prepared, this solution is mixed with an aqueous solution of PEG such
       that the substance is concentrated and/or solidified, the substance is
       optionally washed, the substance is mixed with an aqueous starch
       solution, the composition obtained is mixed, after the admixture of the
       starch solution, with a polymer solution, thereby forming an
       emulsion of starch droplets in the polymer solution, the
       starch droplets are solidified into microparticles, the
       microparticles are dried and a release-controlling shell is optionally
       applied to these.
       Novel microparticles which are obtainable by means of this process.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L5
     ANSWER 12 OF 21 USPATFULL on STN
AN
       2002:126893 USPATFULL
TI
       Starch
       Gustavsson, Nils Ove, Loddekopinge, SWEDEN
IN
       Jonsson, Monica, Bara, SWEDEN
       Berden, Per, Malmo, SWEDEN
       Laakso, Timo, Campton, UNITED KINGDOM
       Reslow, Mats, Lund, SWEDEN
       US 2002065411
ΡI
                               20020530
                          A1
       US 6616948
                          B2
                               20030909
ΑI
       US 2001-970795
                          A1
                               20011005 (9)
PRAI
       SE 2000-3616
                           20001006
       US 2001-260491P
                           20010108 (60)
       Utility
DT
       APPLICATION
FS
       Benton S. Duffett, Jr., BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box
LREP
       1404, Alexandria, VA, 22313-1404
       Number of Claims: 45
CLMN
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 1127
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Production of purified, parenterally administrable starch by
AB
       washing starch containing more than 85% amylopectin
       in order to remove surface-localized proteins, lipids and
       endotoxins, subjecting the starch to a molecular
       weight reduction by acid hydrolysis, and optionally removing residual
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water-soluble proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Purified starch and microparticles based on such starch.

L5ANSWER 13 OF 21 USPATFULL on STN AN 2002:85699 USPATFULL TIPharmaceutically acceptable starch Gustavsson, Nils Ove, Loddekopinge, SWEDEN IN Jonsson, Monica, Bara, SWEDEN Berden, Per, Malmo, SWEDEN Laakso, Timo, Campton, UNITED KINGDOM Reslow, Mats, Lund, SWEDEN US 2002045745 PIA1 20020418 US 6689389 B2 20040210 US 2001-970648 A1 20011005 (9) SE 2000-3616 20001006 AIPRAI US 2001-260491P 20010108 (60) Utility DTAPPLICATION FS Benton S. Duffett, Jr., BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box LREP 1404, Alexandria, VA, 22313-1404 Number of Claims: 45 CLMN Exemplary Claim: 1 ECLNo Drawings DRWN LN.CNT 1167 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Production of purified, parenterally administrable starch by AB washing starch containing more than 85% amylopectin in order to remove surface-localized proteins, lipids and endotoxins, dissolving the starch in aqueous medium, molecular weight reduction by shearing, and optionally removal of residual water-soluble proteins, preferably by anion exchange chromatography. Purified starch and microparticles based on such starch. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 14 OF 21 USPATFULL on STN L5AN2002:84936 USPATFULL TIMicroparticles Gustavsson, Nils Ove, Loddekopinge, SWEDEN IN Jonsson, Monica, Bara, SWEDEN Laakso, Timo, Campton, UNITED KINGDOM Reslow, Mats, Lund, SWEDEN ΡI US 2002044976 A1 20020418 US 6706288 B2 20040316 AΙ US 2001-970793 **A**1 20011005 (9) 20001006 PRAI SE 2000-3615 US 2001-260455P 20010108 (60) DTUtility APPLICATION FS Benton S. Duffett, Jr., BURNS, DOANE, SWECKER & MATHIS, L.L.P., P.O. Box LREP 1404, Alexandria, VA, 22313-1404 CLMN Number of Claims: 46 ECL Exemplary Claim: 1 DRWN No Drawings LN.CNT 1757 CAS INDEXING IS AVAILABLE FOR THIS PATENT. ABA process for producing parenterally administrable microparticles, in

which an at least 20% by weight aqueous solution of purified

amylopectin-based starch of reduced molecular weight is prepared, the solution is combined with biologically active substance, an emulsion of starch droplets is formed in an outer phase of polymer solution, the starch droplets are made to gel, and the gelled starch particles are dried. A release-controlling shell is optionally also applied to the particles.

Microparticles which essentially consist of said starch, have an amino acid content of less than 50 μg and have no covalent chemical cross-linking.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 15 OF 21 USPATFULL on STN
L5
       2000:138511 USPATFULL
AN
       Humanized anti-IL-8 monoclonal antibodies
TI
       Gonzalez, Tania N., Oakland, CA, United States
IN
       Leong, Steven R., Berkeley, CA, United States
       Presta, Leonard G., San Francisco, CA, United States
       Genentech, Inc., South San Francisco, CA, United States (U.S.
PA
       corporation)
PI
       US 6133426
                               20001017
                               19980220 (9)
AΙ
       US 1998-26985
      US 1997-38664P
                           19970221 (60)
PRAI
                           19980122 (60)
       US 1998-74330P
       Utility
DT
       Granted
FS
EXNAM Primary Examiner: Mertz, Prema
       Love, Richard B.
LREP
       Number of Claims: 17
CLMN
       Exemplary Claim: 1
\mathsf{ECL}
       136 Drawing Figure(s); 136 Drawing Page(s)
DRWN
LN.CNT 9465
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Humanized anti-IL-8 monoclonal antibodies and variants thereof are
AB
```

described for use in diagnostic applications and in the treatment of inflammatory disorders. Also described is a conjugate formed by an antibody fragment covalently attached to a non-proteinaceous polymer, wherein the apparent size of the conjugate is at least about 500 kD. The

conjugate exhibits substantially improved half-life, mean residence time, and/or clearance rate in circulation as compared to the underivatized parental antibody fragment.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5

ANSWER 16 OF 21 USPATFULL on STN

```
AN
       2000:18244 USPATFULL
       Nucleic acids encoding humanized anti-IL-8 monoclonal antibodies
TI
       Gonzalez, Tania N., Oakland, CA, United States
IN
       Leong, Steven R., Berkeley, CA, United States
       Presta, Leonard G., San Francisco, CA, United States
       Genentech, Inc., South San Francisco, CA, United States (U.S.
PA
       corporation)
       US 6025158
                                20000215
PI
                                19980220 (9)
ΑI
       US 1998-27449
       US 1997-38664P
                           19970221 (60)
PRAI
       US 1998-74330P
                           19980122 (60)
       Utility
\mathtt{DT}
       Granted
FS
      Primary Examiner: Mertz, Prema
EXNAM
       Love, Richard B.
LREP
       Number of Claims: 18
CLMN
       Exemplary Claim: 1
ECL
       130 Drawing Figure(s); 136 Drawing Page(s)
DRWN
LN.CNT 9492
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described for use in diagnostic applications and in the treatment of inflammatory disorders. Also described is a conjugate formed by an antibody fragment covalently attached to a non-proteinaceous polymer, wherein the apparent size of the conjugate is at least about 500 kD. The conjugate exhibits substantially improved half-life, mean residence time, and/or clearance rate in circulation as compared to the underivatized parental antibody fragment. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 17 OF 21 USPAT2 on STN L5 2003:299946 USPAT2 AN Starch microparticles TIGustavsson, Nils Ove, Loddekopinge, SWEDEN IN Jonsson, Monica, Bara, SWEDEN Laakso, Timo, Campton, UNITED KINGDOM Reslow, Mats, Lund, SWEDEN Jagotec AG, Muttenz, SWITZERLAND (non-U.S. corporation) PA20040217 US 6692770 B2 PΙ 20030616 (10) US 2003-461445 AΙ Division of Ser. No. US 2001-970793, filed on 5 Oct 2001 RLI 20001006 SE 2000-3615 PRAI US 2001-260455P 20010108 (60) Utility DT FS GRANTED Primary Examiner: Azpuru, Carlos A. EXNAM Edwards & Angell, LLP LREP Number of Claims: 19 CLMN Exemplary Claim: 1 ECL 0 Drawing Figure(s); 0 Drawing Page(s) DRWN LN.CNT 1709 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A process for producing parenterally administrable microparticles, in AB which an at least 20% by weight aqueous solution of purified amylopectin-based starch of reduced molecular weight is prepared, the solution is combined with biologically active substance, an emulsion of starch droplets is formed in an outer phase of polymer solution, the starch droplets are med to gel, and the gelled starch particles are dried. A release-controlling shell is optionally also applied to the particles. Microparticles which essentially consist of said starch, have an amino acid content of less than 50 μg and have no covalent chemical cross-linking. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 18 OF 21 USPAT2 on STN L52002:126893 USPAT2 AN TI Starch Gustavsson, Nils Ove, Loddekopinge, SWEDEN IN Jonsson, Monica, Bara, SWEDEN Berden, Per, Malmo, SWEDEN Laakso, Timo, Campton, UNITED KINGDOM Reslow, Mats, Lund, SWEDEN Jagotec AG, Muttenz, SWITZERLAND (non-U.S. corporation) PAUS 6616948 B2 20030909 PIUS 2001-970795 20011005 (9) ΑI 20001006 SE 2000-3616 PRAI US 2001-260491P 20010108 (60) Utility DTGRANTED FS EXNAM Primary Examiner: Azpuru, Carlos A.

Burns, Doane, Swecker & Mathis, L.L.P.

Humanized anti-IL-8 monoclonal antibodies and variants thereof are

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

LREP

```
CLMN
       Number of Claims: 28
       Exemplary Claim: 1
ECL
       0 Drawing Figure(s); 0 Drawing Page(s)
DRWN
LN.CNT 1094
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Production of purified, parenterally administrable starch by
AB
       washing starch containing more than 85% amylopectin
       in order to remove surface-localized proteins, lipids and
       endotoxins, subjecting the starch to a molecular
       weight reduction by acid hydrolysis, and optionally removing residual
       water-soluble proteins.
       Purified starch and microparticles based on such
       starch.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 19 OF 21 USPAT2 on STN
L5
       2002:85699 USPAT2
AN
       Pharmaceutically acceptable starch
TI
       Gustavsson, Nils Ove, Loddekopinge, SWEDEN
IN
       Jonsson, Monica, Bara, SWEDEN
       Berden, Per, Malmo, SWEDEN
       Laakso, Timo, Campton, UNITED KINGDOM
       Reslow, Mats, Lund, SWEDEN
       Jagotec AG, Muttenz, SWITZERLAND (non-U.S. corporation)
PA
PI
       US 6689389
                          B2
                                20040210
ΑI
       US 2001-970648
                                20011005 (9)
PRAI
       SE 2000-3616
                           20001006
       US 2001-260491P
                           20010108 (60)
       Utility
DT
FS
       GRANTED
       Primary Examiner: Wang, Shengjun
EXNAM
       Burns, Doane, Swecker & Mathis, L.L.P.
LREP
       Number of Claims: 42
CLMN
       Exemplary Claim: 1
ECL
       0 Drawing Figure(s); 0 Drawing Page(s)
DRWN
LN.CNT 1168
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Production of purified, parenterally administrable starch by
AB
       washing starch containing more than 85% amylopectin
       in order to remove surface-localized proteins, lipids and
       endotoxins, dissolving the starch in aqueous medium,
       molecular weight reduction by shearing, and optionally removal of
       residual water-soluble proteins, preferably by anion exchange
       chromatography.
       Purified starch and microparticles based on such
       starch.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L5
     ANSWER 20 OF 21 USPAT2 on STN
AN
       2002:84936 USPAT2
TI
       Microparticles
       Gustavsson, Nils Ove, Loddekopinge, SWEDEN
IN
       Jonsson, Monica, Bara, SWEDEN
       Laakso, Timo, Campton, UNITED KINGDOM
       Reslow, Mats, Lund, SWEDEN
       Jagotec AG, Muttenz, SWITZERLAND (non-U.S. corporation)
PA
PI
       US 6706288
                          B2
                               20040316
      US 2001-970793
ΑI
                               20011005 (9)
PRAI
       SE 2000-3615
                           20001006
       US 2001-260455P
                           20010108 (60)
```

Utility

DT

FS GRANTED Primary Examiner: Azpuru, Carlos A. EXNAM Burns, Doane, Swecker & Mathis, L.L.P. LREP Number of Claims: 28 CLMN Exemplary Claim: 1 ECL 0 Drawing Figure(s); 0 Drawing Page(s) DRWN LN.CNT 1735 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A process for producing parenterally administrable microparticles, in AB which an at least 20% by weight aqueous solution of purified amylopectin-based starch of reduced molecular weight is prepared, the solution is combined with biologically active substance, an emulsion of starch droplets is formed in an outer phase of polymer solution, the starch droplets are made to gel, and the gelled starch particles are dried. A release-controlling shell is optionally also applied to the particles. Microparticles which essentially consist of said starch, have an amino acid content of less than 50 μg and have no covalent chemical cross-linking. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 21 OF 21 WPINDEX COPYRIGHT 2004 THOMSON DERWENT on STN L52004-080353 [08] WPINDEX AN DNC C2004-033011 Microparticles useful for controlled release of biologically active TIsubstances comprise buffer substance(s) and starch containing specified amylopectin and amino acid nitrogen contents, and have no covalent chemical crosslinking. DC A11 A96 B04 B07 D16 INJONSSON, M; LAAKSO, T; LARSSON, K; RESLOW, M; JOENSSON, M (JONS-I) JONSSON M; (LAAK-I) LAAKSO T; (LARS-I) LARSSON K; (RESL-I) RESLOW PA M; (JAGO-N) JAGOTEC AG 103 CYC A1 20030925 (200408)* PΙ US 2003180371 20 A1 20031002 (200408) WO 2003080033 EN RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW A1 20031008 (200432) AU 2003212776 ADT US 2003180371 A1 US 2002-162674 20020606; WO 2003080033 A1 WO 2003-SE463 20030320; AU 2003212776 A1 AU 2003-212776 20030320 FDT AU 2003212776 A1 Based on WO 2003080033 PRAI SE 2002-1599 20020530; SE 2002-873 20020321 2004-080353 [08] AN WPINDEX US2003180371 A UPAB: 20040202 AB NOVELTY - Microparticles containing a biologically active substance comprise starch having an amylopectin content exceeding 85 weight% and an amino acid nitrogen content of less than 50 micro g per gram dry weight of starch, are new. The microparticles have no covalent chemical crosslinking between the starch molecules, and contain buffer substance(s) to keep the pH of the produced microparticles above 3 if exposed to an aqueous environment. DETAILED DESCRIPTION - Microparticles containing a biologically active substance comprise starch having an amylopectin content exceeding 85 weight%, at least 80 weight% of which has an average molecular weight of 10-10000 kDa, and having an amino acid nitrogen content of less than 50 mu g per gram dry weight of starch. The microparticles have no covalent chemical

crosslinking between the **starch** molecules, and contain at least one buffer substance that keeps the pH of the produced microparticles above 3 if exposing the microparticles to an aqueous environment, e.g. at injection into a mammal including man.

An INDEPENDENT CLAIM is also included for a process for producing microparticles containing biologically active substance, which involves:

- (a) preparing an aqueous starch solution comprising starch which has an amylopectin content exceeding 65 weight%, in which the molecular weight of the amylopectin has been reduced such that at least 80 weight% of the material is 10-10000 kDa, and which has an amino acid nitrogen content of less than 50 micro g per g dry weight of starch;
- (b) combining the biologically active substance with the starch solution under such conditions that a composition in the form of a solution, emulsion, or suspension of the substance in the starch solution is formed;
- (c) mixing the composition with an aqueous solution of a polymer having the ability of forming a two-phase aqueous system, thus forming an emulsion of starch droplets which contain the biologically active substance as an inner phase in an outer phase of the polymer solution; causing or allowing the starch droplets to gel into starch particles through the natural capacity of the starch to solidify;
- (d) drying the **starch** particles, preferably after prior removal of the outer phase through washing; and
- (e) optionally applying a release-controlling shell of a biocompatible and biodegradable polymer, preferably by air suspension technology to the dried **starch** particles. At least one buffer substance having the ability to keep the pH of the produced microparticles to an aqueous environment, e.g. by injection into a mammal including man, is added at any stage during the process.

USE - The microparticles are useful for controlled release for parenteral administration of biologically active substances, especially drugs, to a mammal, especially human.

ADVANTAGE - The inventive microparticles create a good microclimate for the biologically active substance incorporated in the microparticles such that the bioactivity of the substance is maintained during the manufacturing process as well as after administration.

Dwg.0/1

=> dis hist

L3

L5

=>

(FILE 'HOME' ENTERED AT 15:31:30 ON 26 JUL 2004)

FILE 'APOLLIT, BABS, CAPLUS, CBNB, CEN, CIN, DISSABS, EMA, IFIPAT, JICST-EPLUS, PASCAL, PLASNEWS, PROMT, RAPRA, SCISEARCH, TEXTILETECH, USPATFULL, USPAT2, WPIFV, WPINDEX, WTEXTILES' ENTERED AT 15:31:42 ON 26 JUL 2004

L1 97234 S STARCH AND (PHARMACEUTICAL OR (PHARMACEUTICAL (W) GRADE))

L2 2070 S L1 AND AMYLOPECTIN

21 S L2 AND PURITY AND (AMINO ACID NITROGEN)

L4 21 S L3 AND GEL

21 S L4 AND ENDOTOXIN

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS

SINCE FILE ENTRY

TOTAL SESSION

FULL ESTIMATED COST

106.98

107.19

STN INTERNATIONAL LOGOFF AT 15:38:02 ON 26 JUL 2004